

CLAIM AMENDMENTS

1-48. (cancelled)

49. (new) A method of manufacturing a self-supporting volume unit for an aluminum tank suitable for storing very cold cryogenic liquids, such as liquefied ethylene (LEG) or natural gas (LNG), the volume unit defining an internal space and having a basic form corresponding to a rectangular prism having a first side opposite a third side and a second side opposite a fourth side, the method comprising:

providing first mechanically extruded aluminum profile elements each having a plane part and a stiffening part extending essentially perpendicular to the plane part and having a free distal end relative to the plane part,

forming a first plane element by attaching the first profile elements to each other by their plane parts using friction welding, the plane parts of the first profile elements being substantially coplanar,

providing second mechanically extruded aluminum profile elements,

forming a stiffener by attaching the second profile elements to each other by friction welding,

attaching the stiffener to the first plane element,

providing at least second, third and fourth plane elements each having at least one stiffener attached thereto, and

attaching the first, second, third and fourth plane elements having stiffeners attached thereto to each other to form said first, second, third and fourth sides respectively of said self-supporting volume unit.

50. (new) A self-supporting volume unit for fabrication of an aluminum tank suitable for storing very cold cryogenic liquids, such as liquefied ethylene (LEG) or natural gas (LNG), the volume unit having a basic form corresponding to a rectangular prism having a first side opposite a third side and a second side opposite a fourth side, the volume unit comprising:

a first plane element that comprises first mechanically extruded aluminum profile elements each having a plane part and a stiffening part extending essentially perpendicular to the plane part and having a free distal end relative to the plane part, the first profile elements being attached to each other by friction welding their plane parts with their plane parts substantially coplanar,

at least one stiffener that comprises second mechanically extruded aluminum profile elements attached to each other by friction welding and is attached to the first plane element,

at least second, third and fourth plane elements each having at least one stiffener attached thereto,

and wherein the first, second, third and fourth plane elements are attached to each other to form said first, second, third and fourth sides respectively of said self-supporting volume unit.